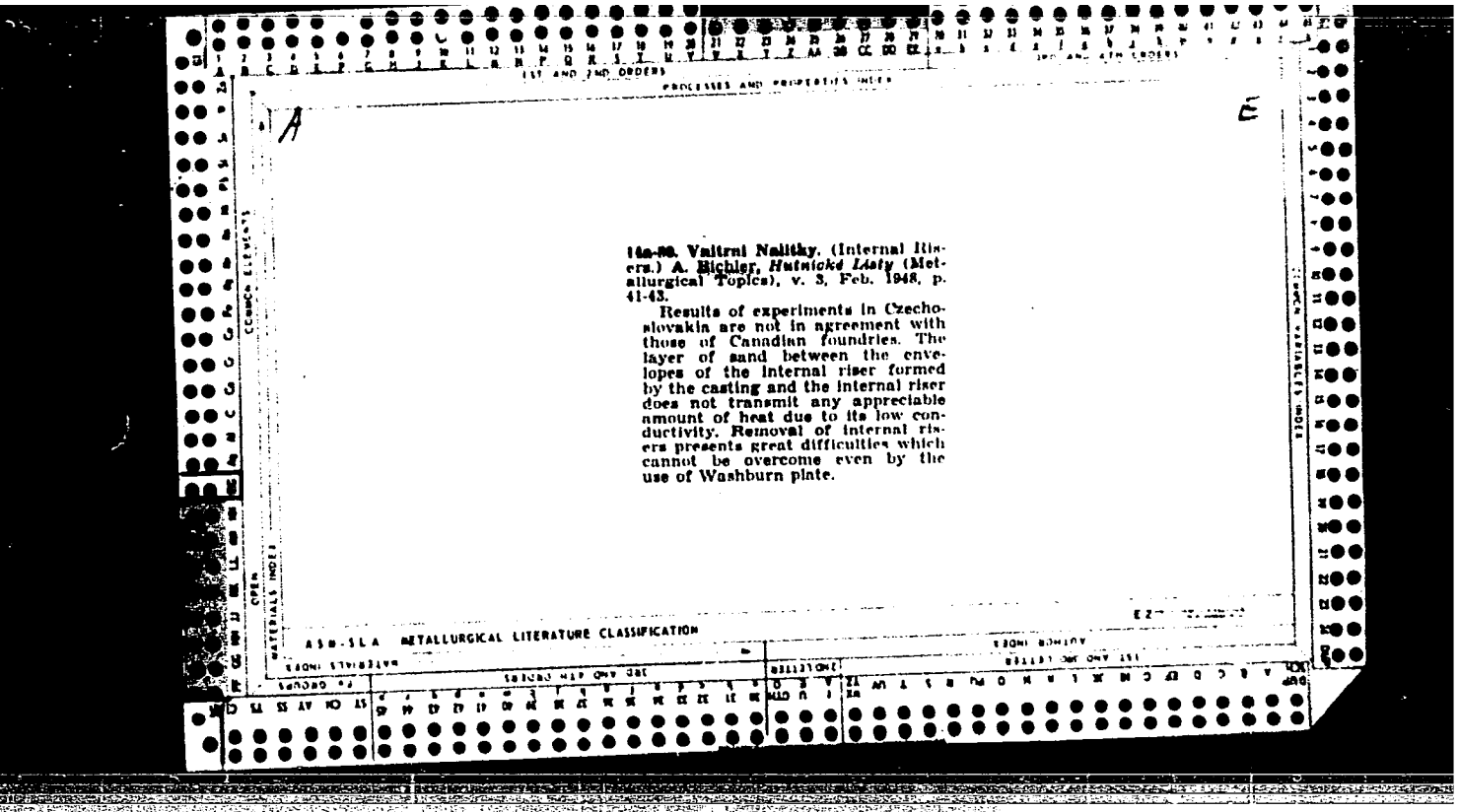
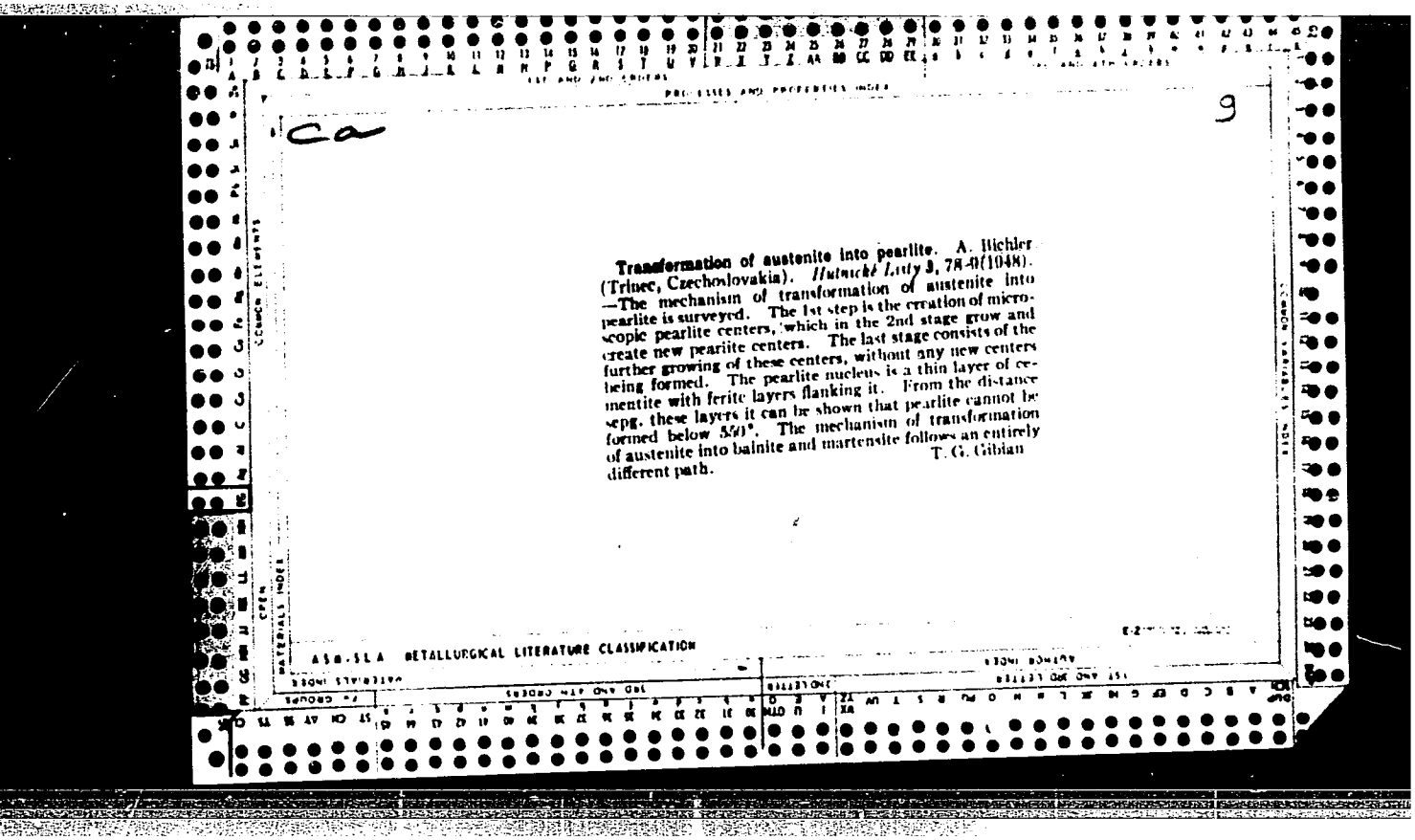


14a-88. **Valirni Nalitky.** (Internal Risers.) A. Richter, *Hutnicke Listy* (Metallurgical Topics), v. 3, Feb. 1948, p. 41-43.

Results of experiments in Czechoslovakia are not in agreement with those of Canadian foundries. The layer of sand between the envelopes of the internal riser formed by the casting and the internal riser does not transmit any appreciable amount of heat due to its low conductivity. Removal of internal risers presents great difficulties which cannot be overcome even by the use of Washburn plate.



Ca

9

Transformation of austenite into pearlite. A. Hichler (Trinec, Czechoslovakia). *Hutnické Listy* 3, 78-9(1948). —The mechanism of transformation of austenite into pearlite is surveyed. The 1st step is the creation of microscopic pearlite centers, which in the 2nd stage grow and create new pearlite centers. The last stage consists of the further growing of these centers, without any new centers being formed. The pearlite nucleus is a thin layer of cementite with ferrite layers flanking it. From the distance betwn. these layers it can be shown that pearlite cannot be formed below 550°. The mechanism of transformation of austenite into bainite and martensite follows an entirely different path. T. G. Gibian

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

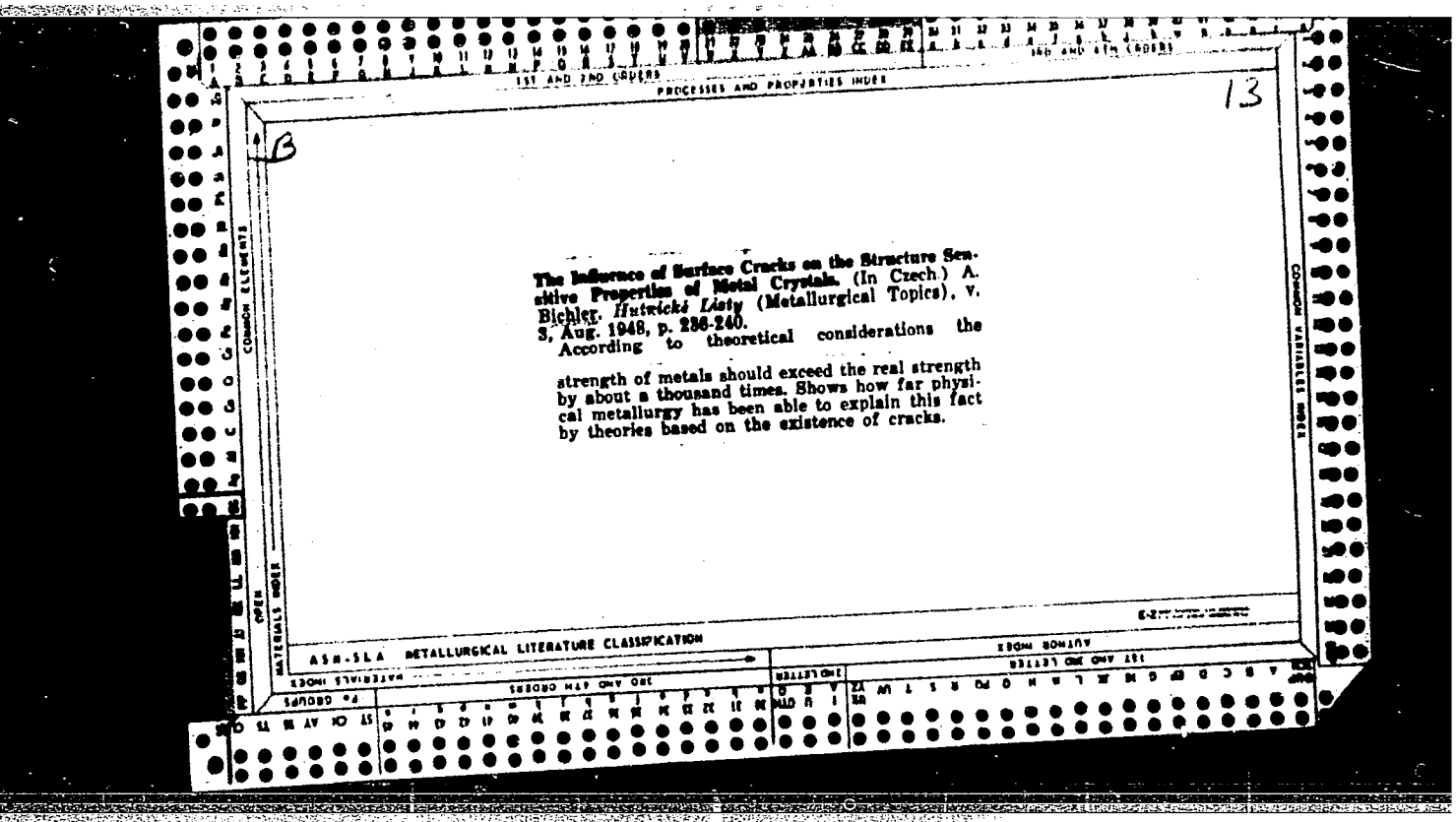
S

8

NEW METHOD FOR THE PRODUCTION OF BENTONITE. A. Bichler. (Hutnicke. Listy, 1948, vol. 3, No. 7, pp. 203-204) [In Czech).

A new method of producing synthetic bentonite has been developed which is based on the co-operative effect of ions within a certain range of cation contents. This co-operative effect occurs only over a certain range of ion contents, whilst outside this range the ions lose to a certain extent the properties which are responsible for the swelling capacity of the bentonite. This method is cheaper and more effective thanthe German method now used in Czechoslovakia. E.G.

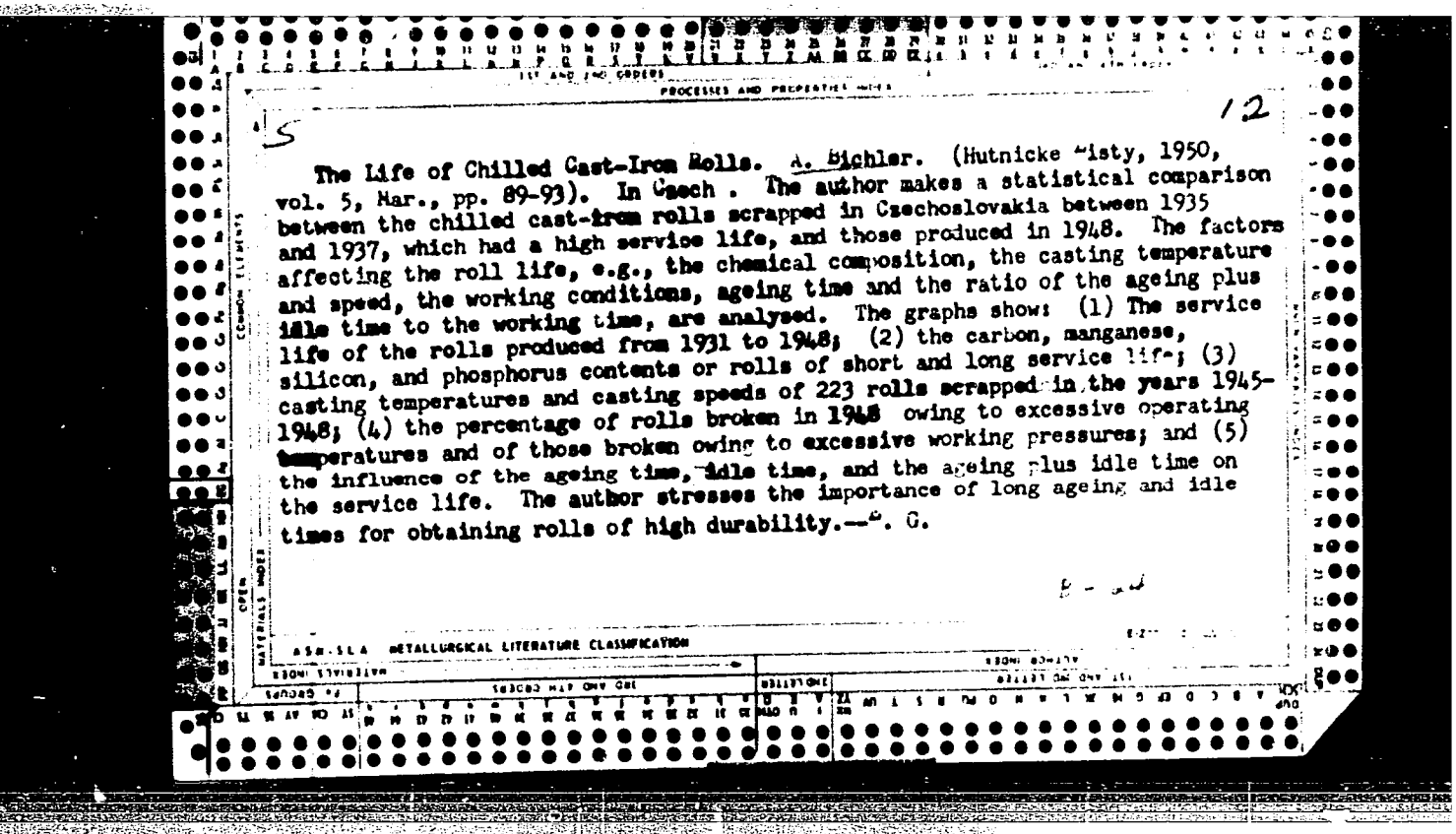
B-24



13

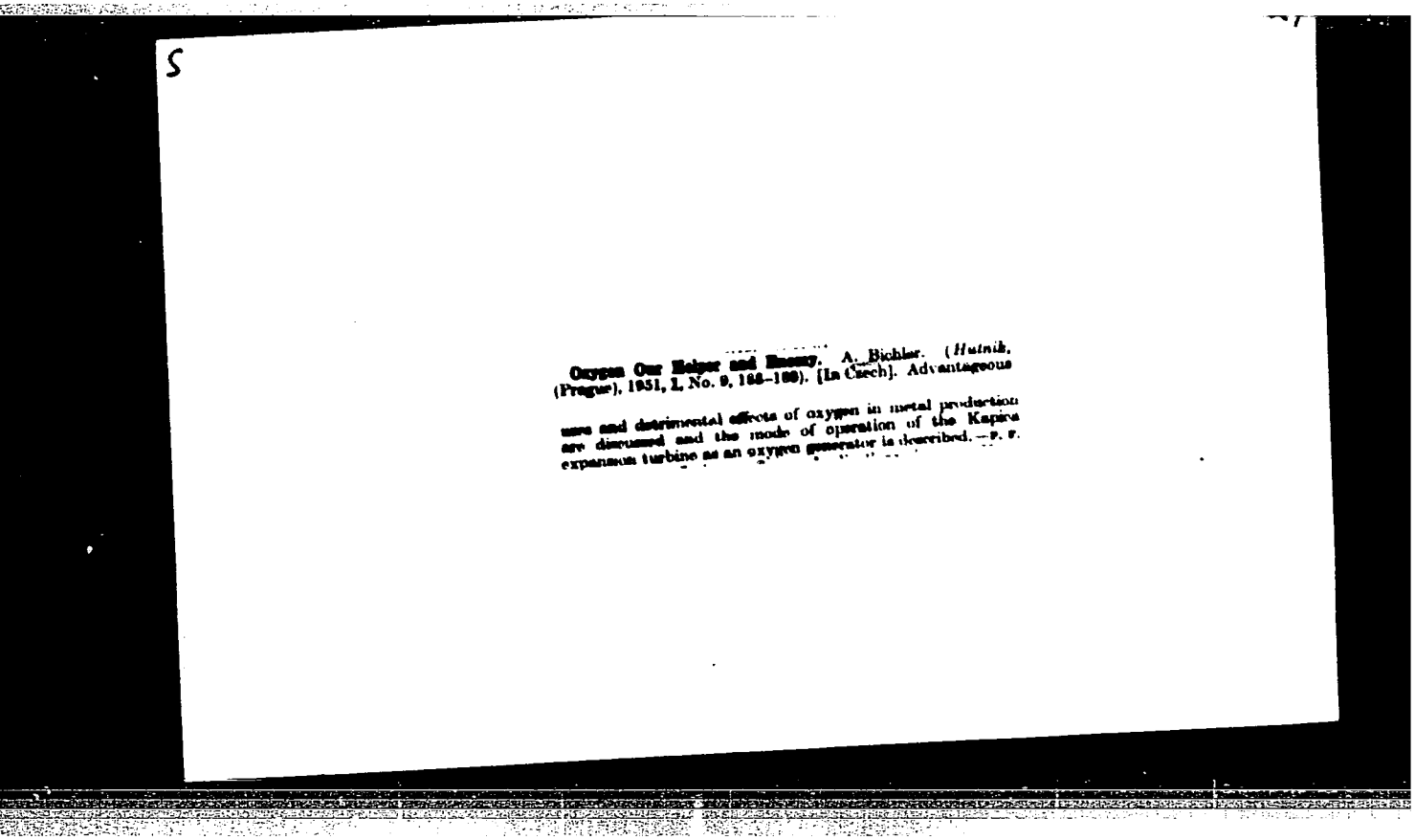
The Influence of Surface Cracks on the Structure Sensitive Properties of Metal Crystals. (In Czech.) A. Bichler. *Hutnické Listy* (Metallurgical Topics), v. 3, Aug. 1948, p. 236-240.

According to theoretical considerations the strength of metals should exceed the real strength by about a thousand times. Shows how far physical metallurgy has been able to explain this fact by theories based on the existence of cracks.



12

The Life of Chilled Cast-Iron Rolls. A. Bichler. (Hutnicke listy, 1950, vol. 5, Mar., pp. 89-93). In Czech. The author makes a statistical comparison between the chilled cast-iron rolls scrapped in Czechoslovakia between 1935 and 1937, which had a high service life, and those produced in 1948. The factors affecting the roll life, e.g., the chemical composition, the casting temperature and speed, the working conditions, ageing time and the ratio of the ageing plus idle time to the working time, are analysed. The graphs show: (1) The service life of the rolls produced from 1931 to 1948; (2) the carbon, manganese, silicon, and phosphorus contents or rolls of short and long service life; (3) casting temperatures and casting speeds of 223 rolls scrapped in the years 1945-1948; (4) the percentage of rolls broken in 1948 owing to excessive operating temperatures and of those broken owing to excessive working pressures; and (5) the influence of the ageing time, idle time, and the ageing plus idle time on the service life. The author stresses the importance of long ageing and idle times for obtaining rolls of high durability.—A. G.



S

Oxygen Our Helper and Enemy. A. Bichler. (*Hutnik*, (Prague), 1951, 1, No. 9, 188–189). [In Czech]. Advantageous uses and detrimental effects of oxygen in metal production are discussed and the mode of operation of the Kapica expansion turbine as an oxygen generator is described. — P. F.

BICHLER, A.

The Production of Pig Iron with a Low Manganese Content. A. Bichler. (*Hutnické Listy*, 1958, 11, (3), 148–149). [In Czech]. Experiments on the use of low Mn pig-iron in the Molotov Steelworks in Třinec in the production of open-hearth steel with a 60% liquid charge show that reduced manganese contents lead to economies. A drop of 0.1% in the manganese content was found to facilitate a reduction of the amount of coke used in the open hearth furnace by 1%. Steel quality is unaffected.—P.F.

BICHLER, A.

Development of the V. M. Molotov Ironworks during the period of socialist construction in our republic.

p. 328 (Hutnik. Vol. 7, no. 10 Oct. 1957, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2
February 1958

BICHLER, A.

"Research on the dependence of specific consumption of coke on the melting capacity of a blast furnace."

HUTNICKE LISTY, Brno, Czechoslovakia, Vol. 14, No. 6, June 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 9, September 1959.

Unclassified.

BICHMAN, B.M.

"Reduction of Old Dislocations of the Hip by Tension," Kirurgiya No. 6, 1949 Dzerzhinsk, Gorkiy Oblast 1949

BICHOKOVSKI, Iv., inzh.; MLADENOV, St., inzh.

Device for the checking of the number of turns. Ratsionalizatsiia no.7:20-21 '62.

MLADENOV, St., inzh.; BICHOKOVSKI, Iv., inzh.

Modernizing the device for section winding. Ratsionalizatsiia 13 no.5:18-19 '63.

BICHONSKI, Ryszard; PAWELEK, Janusz

Use of radiochlorine Cl-36 in the study of the transport of chlorine ions to human erythrocytes. Folia med. Cracov. 6 no.1-2:143-148 '64

BICHSEL, H.

Stebler, A., Huber, P., and Bichsel, H.

Boron^{10} (n, α) lithium^{7} reaction with slow neutrons.

Helv. Phys. Acta, Vol. 22, 1949, pp. 362-4.

Chem. Abst., Vol. 44:1818^{c}

A gas-filled BF_3 ionization chamber, impulse amplifer, and spectrograph were used to obtain Q-values. The app. was calibrated with U^{233} α-particles, on the assumption that the av. work for the generation of an ion pair is independent of the energy. The results with different gases in the ionization chamber showed that this assumption is incorrect. In a second expt., thin B layers were irradiated with slow neutrons and the resulting -particles and Li^{7} separately measured. The relative energies, E(α)/E(li) were 1.89 $\pm$ 0.02 and 1.94 $\pm$ 0.02 with A and O_2, resp., as the gases used in the app. These results again show that the work of ion-pair generation depends on the gas used.

S/130/61/000/002/004/005
A006/A001

AUTHOR: Bichuch, A. M., Deputy Chief of the Plant Technical Department

TITLE: Drawing of Rolled Bessemer Metal Wire

PERIODICAL: Metallurg, 1961, No. 2, pp. 35-37

TEXT: Drawing of rolled Bessemer metal wire was investigated at the Krasnyy Profintern Plant and compared to open-hearth metal OM wir, as to the number and causes of breaks during drawing, mechanical properties, chemical composition and metallographical properties. The following wire grades were tested: БСт.0 (BSt.0) wire from the Plant imeni Dzerzhinskiy, BSt.3 wire from the Plants imeni Petrovskiy and imeni Komintern and OM wire from the Plants imeni Dzerzhinskiy and imeni Komintern. It was found that open hearth metal wire up to 5 mm diameter showed almost no breaks during drawing, whereas Bessemer metal wire underwent about two breaks per ton. When drawing Bessemer wire to 4.5 and 4.00 mm diameter at lower reduction, the same or a slightly higher number of breaks occurred as in drawing open-hearth wire of the same dimensions but with conventional reduction. Bessemer wire when drawn to 3.5 mm diameter is accompanied by a higher number of breaks at both conventional and lower reduction. Satisfactory results were obtain-

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Drawing of Rolled Bessemer Metal Wire

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A006/A001

ed when drawing Bessemer metal wire to 4.0 mm minimum diameter at lower reduction and greater number of strainers. The possibility was studied of drawing Bessemer wire to a thinner diameter (3.5, 2.5 and 1.0 mm). The drawing to 3.5 mm diameter was made at reduced speed (170 m/min. instead of 275 m/min); the number of breaks was 7.85 per 1 ton. Bessemer wire, to be drawn from 5.0 to 2.5 and 1.0 mm diameter was previously annealed. The results were unsatisfactory, i. e. 4.4 breaks per ton for 2.5 mm wire and 40 breaks for 1.0 mm wire. Drawing of 2.8 mm annealed open-hearth wire to 1.0 and 0.9 mm diameter showed not over 5 breaks per ton. The chemical composition of all the wires investigated was within the limits of GOST 380 - 50. The mechanical tests proved that in Bessemer metal wire the ultimate strength was higher than in open hearth wire, but elongation, narrowing and the number of bends were less. Bessemer wire is more rigid and brittle, and less ductile than open-hearth wire. The metallographical investigation yielded incomplete results but showed however, that there was a strongly pronounced segregation in the metal, in particular along the longitudinal axis. Non-metallic inclusions of granular manganese type were revealed during drawing process. The investigation has shown that Bessemer rolled wire suffered multiple breaks during drawing, due to considerable contamination and low ductility of the metal, entailing metal losses and reducing efficiency of wire production as compared to open-

Card 2/3

Drawing of Rolled Bessemer Metal Wire

S/130/61/000/002/004/005
A006/A001

hearth metal wire. Drawing of Bessemer wire to 5.0 mm in diameter should be carried out on a two-stage mill; 4.0 mm wire should be drawn using three strainers. Drawing of Bessemer wire to a diameter less than 4.0 mm is inexpedient. There are 4 tables.

ASSOCIATION: Zavod "Krasnyy Profintern" ("Krasnyy Profintern" Plant

Card 3/3

BICHUCH, A.M., inzh.

Conditions of drawing bessemer wire rods. Stal' 21 no. 1:84-86 Ja '61. (MIRA 14:1)

1. Zavod "Krasnyy Profintern."
(Wire drawing)

RIGMANT, B.M.; BICHUCH, A.M.; SAVIN, V.A.

Roof nails. Standartizatsiia 26 no.4:46 Ap '62. (MIRA 15:3)
(Nails and spikes--Standards)

KANSHIN, Mikhail Dmitriyevich; MIKHAYLOV, Oleg Ivanovich; FERAPONTOV, Gennadiy Viktorovich; BICHUCH, F.R., inzh., retsenzent; PREDE, V.Yu., inzh., red.; VERINA, G.P., tekhn. red.

[Handbook for the weighmaster] Posobie vesovshchiku. Moskva, Vses. izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniia, 1961. 151 p. (MIRA 14:12)

(Railroads--Freight)

BLINOV, S. V., KLI...KS, A. V., ROZANSKIY I. V.

Experience With Treatment of Staphylococcal Skin Diseases.

VOYENNO-MEDITSINSKIY ZHURNAL (MILITARY MEDICAL JOURNAL), No 12, 1954. p.64

ZYANDRIKOV, K.G.; YEVSEYEV, I.K.; SINOPAL'NIKOV . DIMOV, V.I., inzh.;
BICHUGOV, V.I.

Recommended by the Committee of Innovators in Moscow. Mashinostroitel'
no.9:28-29 S '61. (MIRA 14:10)
(Technological innovations)

BICHUGOV, V.I.

Device for checking the running-out of centers. Mashinostroitel' no.10:27 O '61. (MIRA 14:9)
(Instruments)

MERZHANIAN,A.A.; BICHUK,N.Ye.

Calculation of ingredients for preparing tirage and sweetening liqueurs. Vin.SSSR 15 no.3:55-57 '55. (MLRA 8:8)

1. Krasnodarskiy institut pishchevoy promyshlennosti (for Merzhanian). 2. Leningradskiy zavod shampanskikh vin (for Bichuk)
(Wine and wine making)

BICHUK, Yu.P. [Bychuk, IU.P.]

Morphological characteristics of the agents of red and green muscardines, the fungal diseases of Bothynoderes punctiventris Germ. Mikrobiol. zhur. 27 no.6:31-36 '65.

(MIRA 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sakharnoy svekly. Submitted September 23, 1964.

18.5200

S/123/60/000/012/006/006
A004/A001

Translation from: Referativnyy zhurnal, Mashinostroyeniye, 1960, No. 12, p. 176, # 61745

AUTHOR: Bichukin, F. D.

TITLE: Low-Waste Drop Forging

PERIODICAL: Novosti mashinostroyeniya, 1959, No. 3, pp. 14-17

TEXT: The author reports on the work carried out by the Izhevsk Mechanical Institute and Metallurgic Plant to investigate methods of low-waste forging of gears, rims, rings etc. The characteristic feature of this method is the preliminary hot shaping of the body of revolution in a die with standard stamping inclines which ensure an easy removal of the forging from the die. The preliminary shape of drop forging envisages a turn of the horizontal and vertical planes through 5-7°. The seam is shifted to the upper edge, while the film in the internal aperture (if any) is located at the basis of the blank. Then the blank is put in the multi-position die, placed on the trimming press, for cutting

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A004/A001

Low-Waste Drop Forging

off the seam, punching an aperture and crimping, after which the blank possesses its final dimensions and shape. The blank weight is reduced by 15%. There are 4 figures.

V. Ye. L.

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

BICHUKIN, F.D.; MERIIN, I.M.

Specific pressures in hot upsetting with low degrees of deformation. Kuz. shtam. proizv. 4 no.11:5-9 N '62. (MIRA 15:11)

(Forging) (Pressure)

BICHUKIN, F.D.

Investigating the warpage of forgings during trimming and straightening them with hammer and press. Kuz.-shtam. proizv. 1 no.8:9-12 Ag '59. (MIRA 12:12)
(Forging machinery)

S/902/62/000/000/009/015
E193/E383

AUTHOR: Bichukin, F.D.

TITLE: Forging with increased economy of material and labour

SOURCE: Novyye protsessy obrabotki metallov davleniyem; doklady Soveshch. po novym prots. obrab. met. davleniyem v mashinostr., 1960. Ed. by V. D. Golovlev. Moscow, Izd-vo AN SSSR, 1962. 102 - 105

TEXT: In standard forging practice a small extraction angle has to be provided when a forging die is designed. Savings in the metal consumption can be attained by modifying the shape of the forging and the forging process itself in a manner demonstrated in Fig. 1, showing a forging of standard design (Fig. 1a) and the same part in the modified form (Fig. 1б). Fig. 1B shows the finishing die used for forging the modified part; a multi-position blanking press for removing the flash, piercing the hole and stamping the forging is shown in Fig. 1г. It will be seen that in designing the press provision has been made for the part to slide after the flash-

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Forging with ....

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removing operation to the piercing and stamping station. A similar provision is made in a crankshaft-operated, multi-position blanking press used for removal of the flash and for hot trimming and sizing operations. An example of such a press is shown in Fig. 3. The changeover from the standard practice of hot trimming and sizing of medium and large forgings on a forging press to carrying out this operation on blanking presses has been successfully tried at the Izhevskiy metallurgicheskiy zavod (Izhevsk Metallurgical Works) and resulted in considerable economies. There are 3 figures.

Card 2/2

BICHUKIN, Filipp Demidovich; KAZACHENOK, Vladimir Isidorovich; RABANEYEV, F.Sh., inzh., retsenzent; ALEKSEYEVA, Ye.N., red.

[Low-waste precision forgin] Malootkhodnaia i tochnaia shtampovka. Izhevsk, Udmurtskoe knizhnoe izd-vo, 1961. 92 p. (MIRA 17:4)

BICHUL', K.G.

U.S.S.R. / General Problems of Pathology. Pathophysiology of the Infectious Process. T-4

Abs Jour : Ref. Zh.-Biol., No 2, 1958, No 7618

Author : Makorovskaya, L.N., Khakhina, Z.D., Zavyalova, N.K. Bichul', K.G.

Inst :

Title : The Influence of Medicated Sleep on the Course of Experimental Plague in Guinea Pigs.

Orig Pub : Tr. Rostovsk. N. - D. gos. n.-i. Protivochumn. IN-TA 1956, 10, 42-43

Abstract : Guinea Pigs received MLD of B. Pestis, strain 177, subcutaneously, 45 minutes after the administration of thiopental sodium or urethan. Sleep had no curative action on the course of the disease: all the animals died. The average

Card : 1/2

NIKONOV, A.G.; YEVSEYEVA, V.I.; BIBIKOVA, P.D.; BICHUL', K.G.

Cultivation of Vibrio comma in the small intestine of guinea pigs. Zhur. mikrobiol. epid. i immun. 29 no.12:51-53 D '58. (MIRA 12:1)

1. Iz Rostovskogo-na Donu nauchno-issledovatel'skogo protivochumnogo instituta Ministerstva zdravookhraneniya SSSR.
(VIBRIO COMMA, cultures,
an isolated loops of guinea pig small intestine (Rus))
(INTESTINE, SMALL,
cultivation of Vibrio comma in isolated loops of intestine from guinea pigs (Rus))

NIKONOV, A.G.; KHOKHLOVA, A.M.; BICHUL', K.G.; TIMOFEYEVA, R.I.

Cholera bacteriophage. Zhur.mikrobiol.epid. i immun. 30 no.1:90-96 Ja '58. (MIRA 12:3)

1. Iz Rostovskogo-na-Donu nauchno-issledovatel'skogo protivochumnogo instituta Ministerstva zdravookhraneniya SSSR.
(VIBRIO COMMA, bacteriophage (Rus))
(BACTERIOPHAGE, of Vibrio comma (Rus))

KARPUZIDI, K.S.; BOZHENKO, V.P.; BICHUL', K.G.

Role of ticks in the epizootology and natural focal development of plague in the northwestern Caspian Sea region. Sbor. nauch. rab. Elist. protivochum. sta. no. 1:109-117 '59. (MIRA 13:10)
(CASPIAN SEA REGION—TICKS AS CARRIERS OF DISEASE)
(PLAGUE)

BICHUL', T. V.

Dissertation: "Investigation of the Process of the Heterogenic Catalytic Condensation of Butyraldehyde With Acetone in the Presence of Hydrogen." Can Chem Sci, State Inst of Applied Chemistry, Leningrad, 1954. (Referativnyy Zhuranal, Khimiya, Moscow, No. 16 Aug 54.)

SO: SUM 393 28 Feb 1955

BICHUL', T. V., BERDICHEVSKAYA, K. M. and MILLER, M. I. (State Inst of Applied Chem)

"Synthesis of Phenol, With Its Nucleus Tagged by Carbon Isotope C^{14}"

Isotopes and Radiation in Chemistry, Collection of papers of 2nd All-Union Sci. Tech. Conf. on Use of Radioactive and Stable Isotopes and Radiation in National Economy and Science, Moscow, Izd-vo AN SSSR, 1958, 380pp.

This volume published the reports of the Chemistry Section of the 2nd AU Sci Tech Conf on Use of Radioactive and Stable Isotopes and Radiation in Science and the National Economy, sponsored by Acad Sci USSR and Main Admin for Utilization of Atomic Energy under Council of Ministers USSR Moscow 4-12 Apr 1957.

BICHUNSKAYA, Ye. I.

The So-called Benzene Pneumonia.

E. I. Bichunskaya. (Ter. Arkh.) 26, 79-84, March-April, 1954. 6 refs.

"Benzene pneumonia" appears to a form of aspiration pneumonia. Patients usually give a history of having aspirated some of the fluid when attempting to establish a syphon by sucking through a rubber tube, as in emptying a container such as the petrol tank of a car. The author reports 17 such cases, and refers to 17 further cases described by other workers.

The clinical picture of the illness in these cases was characteristic. After an initial period of severe, irritating cough lasting for about 20 or 30 minutes, sometimes with vomiting, there was a silent interval of 2 to 3 hours after which the patients experienced pain on respiration, usually ih the right side of the chest. Later rigor, headache, a burning sensation behind the sternum, and general dyspnoea were complained of. On admission to hospital the patients showed cyanosis, rapid breathing, reduced mobility of the right side of the chest. The temperature ranged from 38° to 39° C. (100.4°to 102.2° F.), and a pleuritic rub was invariably observed. Pneumonia was bilateral in only one case, and occurred in one case on the left side; in the remaining 15 cases it was on the right side only, and usually in the middle it was on the right side only, and usually in the middle lobe. The course was usually benign, and by the end of the first week the temperature had returned to normal. Complete recovery in some cases, however, was delayed.

Of 15 patients who swallowed petrol, but did not aspirate it, none developed pneumonia, nor did any of 22 rats in which the fluid was introduced into the stomach by intubation. The author concludes that, in spite of the fact that petrol

(Continued)

BICHUNSKAYA, Ye.I., tsokhovoy ordinator

Case of angioneurotic edema simulating pulmonary infarct. Sov.med. 20 no.5:78-80 My '56. (MLRA 9:9)

1. Iz mediko-sanitarnoy chasti zavoda imeni V.M.Molotova (Leningrad)
(ANGIONEUROTIC EDEMA, differential diagnosis,
pulm. infarct (Rus))
(LUNGS, infarct,
differ. diag. from angioneurotic edema (Rus))

BICHURIN, N.Ya. (Yakinf).

[Collection of data on peoples who inhabited Central Asia in ancient times] Sobranie svedenii o narodakh obitavshikh v Srednei Azii v drevnie vremena. Moskva, Izd-vo Akademii nauk SSSR. Vol.3. [Geographical index of locations on the map for the history of ancient peoples of Central Asia. Supplements] Geograficheskii ukazatel' mest na karte k istorii drevnikh sredneaziiskikh narodov. Prilozheniia. 1953. 325 p. (MLRA 6:10)
(Asia, Central--Historical geography)

ZHUKOV, A.S.; GRECHUK, A.I.; BICHURIN, R.T.

Quick-change patterns for machine molding. Lit. proizv. no.8: 36 Ag '63. (MIRA 16:10)

15 (2)

AUTHORS: Bron, V. A., Bichurina, A. A. SOV/131-59-5-6/12

TITLE: Utilization of Ferrous Alloy Slags in the Production of High-alumina Refractories (Ob ispol'zovanii shlakov ferrosplavov dlya proizvodstva vysokoglinozemistykh ogneuporov)

PERIODICAL: Ogneupory, 1959, Nr 5, pp 216-221 (USSR)

ABSTRACT: An excerpt from the resolution of the 21st Party Congress of the KPSS emphasizing the necessity of opening internal reserves and increasing the production at the present capacities is given as a motto by the authors of this article. Technology and organization of production as well as the utilization of plants and raw materials are to be improved. The slags forming in the production of ferrous alloys by the aluminothermal process are marked by a high content of Al_2O_3 and by high refractoriness. Slag samples of ferrotitanium, ferrochrome free from carbon, nitrogenous ferrochrome, ferroniobium and ferrochrome-aluminum alloy were investigated (Table 1). The petrographic investigations were carried out by T. F. Raychenko (Footnote 1). The properties of the slags are indicated in table 2. The composition of the burning samples

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and the specific weight of the iron slab are indicated in table 3. Table 4 shows the results of control after burning. Table 5 indicates the properties of products made of slags of ferrous alloys. Conclusions: The slags obtained in aluminothermal processes of the ferrous alloy production represent a high-alumina material with a refractoriness of more than 1800°, an Al_2O_3 content of 69-89 %, and a considerable content of MgO and CaO. High-alumina refractories can be obtained from the slags of ferrochrome free from carbon and of the ferrochrome-aluminum alloy, with an Al_2O_3 content of 86-86 %. The Al_2O_3 of the slags is primarily crystallized in the β-modification. The slags of ferrotitanium and of nitrogenous ferrochrome can also be utilized for the production of highly refractory products. 5% refractory clay with a refractoriness of 1710° was introduced as a binding agent. The results of investigation of these slags show that by their utilization in industry the raw-material sources for the production of high-quality refractories can be

Utilization of Ferrous Alloy Slags in the Production of High-alumina Refractories SOV/131-59-5-6/12

considerably increased. There are 5 tables and 2 Soviet references.

ASSOCIATION: Sverdlovskoye otdeleniye Vsesoyuznogo instituta ogneuporov (Sverdlovsk Branch of the All-Union Institute of Refractories)

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15 (2)

S/131/60/000/02/003/014
B015/B008

AUTHORS: Bron, V. A., Bichurina, A. A.

TITLE: Periclase-forsterite Products From Siliceous Magnesite

PERIODICAL: Ogneupory, 1960, Nr 2, pp 58-63 (USSR)

ABSTRACT: The properties and application of periclase-forsterite products manufactured from siliceous magnesites of the Beloretsk deposit are described in the paper under review. The influence of various additives on the sintering of siliceous magnesite was investigated (Fig 1). The properties of the periclase-forsterite products, dependent on the content of the fine magnesite fractions, are shown in figure 2 and those depending on the amount of pressure applied, in figure 3. The porosity is greatly reduced and the strength increased (Table 1) by introducing the additives TiO_2 and ZrO_2. The periclase-forsterite products exhibit a high deformation temperature under load (Table 2). Their chemical composition is mentioned in table 3 and their properties in table 4. The chemical composition of the periclase-forsterite bricks after their application in a regenerator can be seen from table 5 and their properties from table 6. Their thermal conductivity is shown

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Periclase-forsterite Products From Siliceous Magnesite

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in figure 4 and their microstructure in figures 5-7. The authors state in conclusion that the periclase-forsterite products from siliceous magnesite of the Beloretsk deposit exhibit high quality indices. The density of these products varies within wide limits, dependent on the grain of the mass, amount of pressure applied, burning temperature and additives. TiO_2 and ZrO_2 are described as the most effective sintering additives. The periclase-forsterite products show a high stability during their application in regenerators of Martin furnaces. A further investigation of their manufacturing process and their properties is described as being necessary. There are 7 figures, 6 tables, and 4 Soviet references.

ASSOCIATION: Vostochnyy institut ogneuporov (Eastern Institute of Refractories)

Card 2/2

STRELOV, K.K.; MAMYKIN, P.S.; Prinimali uchastiye: BAS'YAS, I.P.; BICHURINA, A.A.; BRON, V.A.; VECHER, N.A.; VOROB'YEVA, K.V.; D'YACHKOVA, Z.S.; D'YACHKOV, P.N.; DVORKIND, M.M.; IGNATOVA, T.S.; KAYBICHEVA, M.N.; KELAREV, N.V.; KOSOLAPOV, Ye.F.; MAR'YEVICH, N.I.; MIKHAYLOV, Yu.F.; SEMKINA, N.V.; STARTSEV, D.A.; SYREYSHCHIKOV, Yu.Ye.; TARNOVSKIY, G.I.; FLYAGIN, V.G.; FREYDENBERG, A.S.; KHOROSHAVIN, L.B.; CHUBUKOV, M.F.; SHVARTSMAN, I.Sh.; SHCHETNIKOVA, I.L.

Institutes and enterprises. Ogneupory 27 no.11:499-501 '62. (MIRA 15:11)

1. Vostochnyy institut ogneuporov (for Strelov). 2. Ural'skiy politekhnicheskiy institut im. S.M. Kirova (for Mamykin).
(Refractory materials--Research)

S/094/60/000/012/001/004
E194/E284

AUTHORS: Masal'skiy, K. Ye. and Bichutskiy, G. M.

TITLE: Utilisation of the Physical Heat of Pyrolysis Gas

PERIODICAL: Promyshlennaya energetika, 1960, No. 12, pp. 4-7

TEXT: In the manufacture of ethylene various kinds of hydrocarbon are subjected to pyrolysis, after which the ethylene is removed. Pyrolysis is mostly conducted in tubular reactors, the mixture of raw materials and steam being first heated to temperatures of the order of 550-600°C, whence it passes to the radiation part of the furnace. The main conversion of the reactive mixture with the formation of ethylene molecules occurs in the temperature range 750-830°C, provided that the heat is delivered to the material sufficiently quickly. The greatest output of ethylene is obtained if the pressures are not above 3-5 atm and the hot material is quickly removed from the reaction zone and cooled. The heat exchangers are made with tubes of steel grade Х23Н18 (Kh23N18) with which the wall temperature can be raised to 900-950°C. The pyrolysis gases at temperatures of 800-830°C were cooled in condensers or scrubbers and a great deal

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S/094/60/000/012/001/004
E194/E284

Utilisation of the Physical Heat of Pyrolysis Gas

of heat was lost to the cooling water. With the increasing scale of ethylene production this loss became unacceptable. With five furnaces working for example, the heat loss to the cooling water would be about 50 M kcal/hour. It is difficult to use this heat because of the need to cool the gases very rapidly. However, a heat exchanger was designed to raise process steam from this waste heat. A sectional diagram of the equipment is given and it is described. The heat exchanger is 3 640 mm long and has a heating surface of 50 m^2 consisting of 170 tubes of 28 x 35 mm diameter. The pyrolysis gas is cooled from 830-730°C in the front part of the heat exchanger, where its speed is 135-150 m/sec, the gas is cooled in a time of 0.005-0.007 secs with negligible loss of ethylene. In the remaining part of the heat exchanger the gas is cooled from 730-400°C in 0.025 secs. As the pyrolysis gas contains a certain amount of resin vapour the heat exchanger walls must be hotter than 250°C and so the steam pressure is 35-40 atm. Saturated steam at this pressure is used in the oil refineries and the ethylene plant. If the gases are not being cooled quickly enough

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S/094/60/000/012/001/004
E194/E284

Utilisation of the Physical Heat of Pyrolysis Gas

water injection can be used. After about a month's operation coke forms in the furnace and must be removed; arrangements are made to prevent the resulting flue gases from entering the heat exchanger. A chemical water purification plant is provided and also purified condensate is obtained from the works' system and deaerated. Heat transfer calculations on the equipment present certain difficulties. However, a few design formulae are recommended. Each furnace will raise up to 5.5 tons per hour of saturated steam at a pressure of 35 atm; with 5 pyrolysis furnaces operating in the ethylene plant the steam output will be 27 tons per hour. This, together with steam raised in the waste heat boiler which uses flue gas heat, fully meets the steam demand of the plant. It has been calculated that by raising steam in this way the cost of production will be cut by about 8%. There are 2 figures.

Card 3/3

MASAL'SKIY, K., inzh.; BICHUTSKIY, G.M., inzh.

Waste-heat boiler. NTO 3 no. 1:32-34 Ja '61. (MIRA 14:2)
(Boilers)

MASAL'SKIY, K.Ye.; BICHUTSKIY, G.M.

Design of a waste-heat boiler for a tubular furnace with overhead exhaust of the flue gases. Prom.energ. 16 no.5:8-11 My '61. (MIRA 14:7)

(Boilers) (Furnaces)

S/081/62/000/018/035/059
B158/3180

AUTHORS: Masal'skiy, K. Ye., Bichutskiy, G. M.

TITLE: The use of heat from pyrolysis gases

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 18, 1962, 446, abstract 18M137 (Novosti neft. i gaz. tekhn. Neftepererabotka i neftekhimiya, no. 1, 1961, 10-15)

TEXT: A quench-hardening and evaporating apparatus has been designed at Giproneftezavodprom. It is combined with a pyrolysis furnace and, in the range 400 - 630°C, the heat from the pyrogas can be used for the production of high pressure steam (~ 35 kg/cm^2). The apparatus, consisting of a heat exchanger, a drum steam collector and a chamber with a water mist device, is placed next to the furnace, the drum steam collector being located in the housing. Steam obtained with this apparatus may be used in oil refinery units. The data given in the article may help plant project designers and power engineers. There are outline drawings of the apparatus and its main units. [Abstracter's note: Complete translation.]

Card 1/1

MASAL'SKIY, K.Ye., inzh.; BICHUTSKIY, G.M.

Flameless panel-type burner for furnaces with radiating walls. Prom. energ. 17 no.6:14-16 Je '62. (MIRA 17:6)

S/094/63/000/001/001/002
E194/E135

AUTHORS: Masal'skiy, K.Ye., Engineer, and Bichutskiy, G.M., Engineer

TITLE: Utilising the heat of rapid cooling of gas in a formalin plant

PERIODICAL: Promyshlennaya energetika, no.1, 1963, 5-8

TEXT: In a formalin plant low pressure gas at a temperature of 700 - 720 °C is delivered from the reactor at a rate of 7000 n m^3/hour. Waste heat boilers were developed to cool it to 500 °C in 0.05 seconds, releasing 890 000 kcal/hour, and from 500 to 280 °C, releasing 774 000 kcal/hour. In the heat exchanger the hot gas passes between bundles of concentric tubes 76 mm o.d., 3 mm wall and 57 mm o.d., 3 mm wall. In the first rapid cooling section the gas flow rate is 40 m/sec and the cooling surface is 21.5 m^2. The gas is cooled from 500 to 280 °C in an evaporator section which is a continuation of the first section but with a gas flow rate of about 30 m/sec and a total surface area of 38 m^2. The gas contains corrosive formaldehyde particles and therefore

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Utilising the heat of rapid cooling... S/094/63/000/001/001/002
E194/E135

the heat exchangers were made of steel 1Kh18N9T (1Kh18N9T); a further heat exchanger which cools the gas to 180 °C heats feed water. Steam is raised at a pressure of 12 atm at a rate of 6 tons per hour.
There are 4 figures and 1 table.

Card 2/2

BICHUTSKIY, G.M.; MASAL'SKIY, K.Ye.

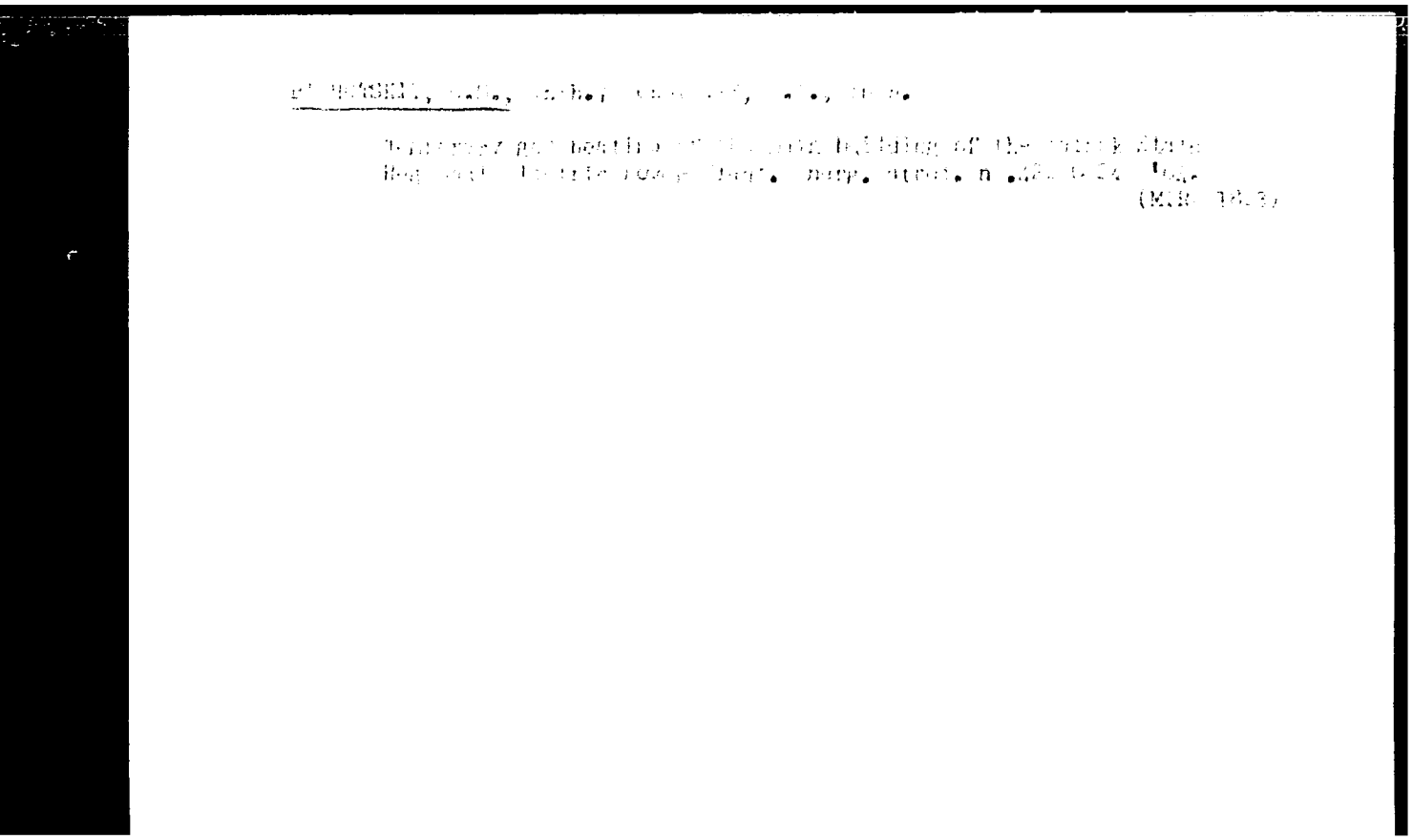
Refining pipestills with radiating walls composed of flameless panel burners. Gaz. prom. 9 no.1:30-32 '64. (MIRA 17:12)

BICHUTSKIY, G.M.

Consultation. Gaz. prom. 9 no.5:29 '64. (MIRA 17:6)

BICHUTSKIY, G.M., inzh.

Use of gas as a heat carrier in temporary heating systems. Prom. energ. 19 no.11:6-10 N '64. (MIRA 18:1)



RUBIN, S.M., agronom; BICHUTSKIY, G.S., agronom

Irrigation and fertilizer application with the help of hydraulic drills are the basis for increased crop yields. Zemledelie 24 no.2:80-82 F '62. (MIRA 15:3)
(Irrigation) (Fertilizer spreaders)

RUBIN, Semen Moiseyevich, agronom; BICHUTSKIY, Georgiy Samoylovich, agronom; BRAKENGEYMER, Rostislav Petrovich, kand.sel'khoz. nauk; ZAGORSKIY, G., red.; POKHLEBKINA, M., tekhn. red.

[Hydraulic mechanization in plant growing]Gidromekhanizatsiia v rastenievodstve. Moskva, Mosk. rabochii, 1962. 26 p. (MIRA 15:11)

(Fertilizers and manures) (Boring machinery) (Irrigation)

BICHUTSKIY, I.

Planning and financing oil and gas wells. Fin.SSSR 18 no.7:20-23 Jl '57. (MIRA 10:7)

(Petroleum industry--Finance)

IL'INSKIY, M.F., BICHUTSKIY, I.L.

The abnormal situation in establishing provisional norms for drilling cannot be tolerated. Neft. khoz. 38 no.6: 52-54 Je '60. (MIRA 13:7)
(Oil well drilling)

BICHUTSKIY, I.L.

Shortcomings in the programming and financing of oil and gas well construction. Neft. khoz. 38 no.12:7-11 D '60. (MIRA 14:4)

(Oil well drilling)

[redacted], I.

Rapid shaft sinking in South Africa and the possibility of applying of its methods in Czechoslovakia. p. 13.
(Uhli, Vol. 7, no. 1, Jan. 1957, Praha, Czechoslovakia.)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. -, no. 10, Dec. 1957, Uncl.

HICIK, J.

Ten years of producing foodstuffs. p. 219. Development of mechanization of the food industry during theyears 1945-1955. p. 224.

RUMYSL POTRAVIN. Praha. Vol. 6, no. 5, 1955.

SOURCE: East European Accessions (EEAL), LC, Vol. 5, no. 3, March 1956.

BICIK, J.

The start of the second Five-Year Plan. p. 418.

PRUMYSL POTRAVIN. Praha. Vol. 6, no. 9, 1955.

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, no. 3, March 1956.

BICIK, Josef, Dr.

Main direction lines of the development of the Czecholsovak food industry. Elelm ipar 13 no.12:379-382 D '59.

1. A Csehszlovak Elelmiszeripari Miniszterium Termelesi- es Ellatasi Osztalyanak vezetoje.

BICIK, Josef, dr.

Guiding principles of the development of the Czechoslovak food industry. Elelm ipar 13 no.12:379-382 D '59.

1. Csehszlovak Elelmiszeripari Miniszterium Termelesi- es Ellatasi Osztalya vezetoje.

BICISTE, V.

Coppering of glass ornaments. V. Bicíste (*Csl. Sklář Keram.*, 1953, 3, No. 4, 72; *Glass Ind.*, 1955, 36, 421).—The glass surface is first activated with $SnCl_2$ and a thin coating of Ag is deposited from a 0·05% solution of $AgNO_3$. A red, opaque Cu lustre is then applied from Fehling's solution at 40°. Compared with the conventional method, only 1% of the Ag is required.

J. A. SUGDEN.

BICI TS. V.

Study of the most suitable glues and putties for Jablonec glass jewelry production. p. 38. SKLAR A KERAMIK. (Ministerstvo lehkeho prumyslu) Praha. Vol. 5, no. 11, Nov. 1955.

SOURCE: East European Accessions List, Vol. 5, no. 9, September 1956

BICISTE, Vl.; VRANA, J.

Second European Symposium on Vacuum. Sklar a keramik 13 no.9:
250-251 S'63.

S/081/62/000/017/064/102
B158/B186

AUTHOR: Biciště, Vladimir

TITLE: Protective glasses absorbing in the ultra-violet part of the spectrum and giving increased contrast

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 17, 1962, 388, abstract 17K306 (Czechoslovak patent 99105, March 15, 1961)

TEXT: A method of producing protective glasses by applying a film having high absorption in the U-V part of the spectrum is described. The films are applied by spraying a mixture of metal halides and one or several metal oxides (e.g. TiO_2, Fe_2O_3, rare earth oxides, MgF_2, ThF_4) onto a transparent backing; the metal oxides may be replaced directly by corresponding metals. [Abstracter's note: Complete translation.]

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45772

S/194/62/000/012/080/101
D413/D308

17.1450

AUTHOR: Bičiště, Vladimír

TITLE: Protective windows which absorb in the ultraviolet and increase contrast

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 12, 1962, 39, abstract 12-7-77 sh (Czech. pat., cl. 21a[1], 34/10, no. 99105, Mar. 15, 1961)

TEXT: The patent covers protective glass windows with increased absorption in the UV region of the spectrum, giving improved contrast. The windows consist of a transparent base layer with thin layers of a mixture of dielectric materials deposited on it by evaporation in vacuo. A distinctive feature is that the deposited layer consists of a mixture of metallic oxides. The patent also covers a method of preparing the protective windows in which one or more of the oxides in the mixture to be evaporated are replaced by the metals (except silicon), and these are oxidized after deposition. Such windows completely absorb UV radiation and strongly

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Protective windows which ...

attenuate the visible radiation close to it, which tires the eyes. The resultant slightly yellowish tint heightens the contrast of the image. [Abstracter's note: Complete translation.]

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ACCESSION NR: AP4024810 Z/0013/64/000/003/0102/0102

AUTHOR: Vrana, Josef; Biciste, Vladimir

TITLE: Method of manufacturing colored layers by metal deposition on a substrate in a vacuum. Czechoslavak patent No. 102320

SOURCE: Sklar a keramik, no. 3, 1964, 102

TOPIC TAGS: colored glass, metal sublimation, metal deposition

ABSTRACT: An Author Certificate has been issued for achieving a color effect by the deposition of one or more layers, consisting of a mixture of one or more metals and sulfur, on a colorless glass or plastic substrate in a vacuum. Selenium or tellurium may be used in place of sulfur.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 17Apr64 ENCL: 00

SUB CODE: MM,MT NO REF SOV: 000 OTHER: 000

Card 1/1

BICKERTON, R.J.; JUKES, J.D.; KOVACS, Jenone [translator]

Direct conversion of thermonuclear energy to electrical power.
Atom taj 2 no.2:83-96 Ap '59.

CZECHOSLOVAKIA

PELESKA, B.; BICIK, V.; Research Institute for Electronics and Medical Modelling (Vyzkumny Ustav pro Elektroniku a Modelovani v Lekarstvi), Prague.

"A New Concept of a Universal Implantable Cardiostimulator."

Prague, Ceskoslovenska Fysiologie, Vol 15, No 4, Jul 66, 319-323

Abstract: A diagram and the construction of an implantable cardiostimulator are presented; 2 to 7 electrical cells can be used in the apparatus. This fact allows one to use various thresholds of cardiac parameters of the treated patients who suffer from an AV block or an AS syndrome. In this way the excess of the potential above the threshold value is minimized, and the life of the device maximized. 2 Figures, 1 Table, 19 Western references. (Manuscript received 21 Feb 66.).

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BICKOVA, L., (Brno)

Studies on serum iron in blood donors. Polskie arch.med. wewn. 26 no.11:1763 1956.

(BLOOD TRANSFUSION,
donors, blood iron in (Pol))
(IRON, in blood,
in blood donors (Pol))

BICLEANU, O., MD

RUMANIA

PESCARU, Al., MD; BUDAI, Silvia, MD; BADICEL, T., MD; BICLEANU, O., MD.

Bucharest, Igiena, No 6, Nov-Dec 63, pp 651-564 (sic)

"Medical Examination of Workers at Time of Hiring."

LUPU, N. Gh., acad.; DINISCHIOTU, G. T.; PAUN, R.; POPESCU, I. Gr.; FOTESCU, L.; ZAMFIRESCU-GHEORGHIU, Marcela; OLARU, Cornelia; IOTA, C. G.; MOSCOVICI, B.; MOLNER, C.; URSEA, N.; LOWE, Judith; WEINER, S.; In colaborare cu AVACHIAN, A.; BICLESAN, I.; DUMITRESCU, I.

Investigations of allergy to ricin. Stud. cercet. med. intern. 2 no.5:639-652 '61.

(RICINUS toxicology) (ALLERGY etiology)

TIRLEA, J.; CUCU-CABADAIEF, L.; BICLESANU, A.; STERN, A.

Function tests in rheumatic fever. Cesk. pediat. 20 no.11: 964-966 N '65.

1. I. deteska klinika Cluj (Rumunsko) (prednosta prof. dr. J. Tirlea).

Bicleseanu, D.; Buimovici, D.

Crushability of Rumanian coal. In Russian, p. 291.

REVUE D'ELECTROTECHNIQUE ET D'ENERGETIQUE. JOURNAL OF ELECTROTECHNICS AND ENERGETICS. (Academia Republicii Populare Romine. Institutul de Energetica) Bucuresti, Rumania Vol. 2, no. 2, 1957

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 9, Sept. 1959

Uncl.

RUMANIA / Chemical Technology, Chemical Products and Their Application. Chemical Processing of Solid Fossil Fuels.

Abs Jour : Ref Zhur - Khimiya, No 5, 1959, No. 16771

Author : Buimovici, D.; Biclesanu, D.
Inst : Not given
Title : Grindability of Coals of the Romanian Democratic Republic. I. Experiments with a Ball Mill

Orig Pub : Studii si cercetari energ. Acad. RPR, 1957, 7, No 3, 411-421

Abstract : With the use of a ball mill, the grindability of lignites of the RNR was investigated. The granulometric content of coals was determined experimentally during the grinding process and dependent on its duration. An empirical equation is proposed for the evaluation of the mechanical strength of coal and its behavior in grinding. -- U. Andres

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H-69

BICIESANU, D.; CARABOGDAN, L.; WESTFRIED, F.

Nomograms for the calculation of combustion processes in industrial furnaces. p. 205.

Academia Republicii Populare Romine. Institutul de Energetica. STUDII SI CERCETARI DE ENERGETICA. Bucuresti, Rumania. Vol. 8, no. 2, 1958.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 7, July, 1959.

Uncl.

BICLESANU, D.; CAMAROCDAN, I.; WESTFRIED, F.

Nomograms for the computation of combustion heat in furnaces and boilers. p. 83

REVISTA CAILOR FERATE. (Caile Ferate Romine) Bucuresti, Rumania; Vol. 7, no. 2, Feb. 1959

Monthly List of East European Accessions (EEAI) LC Vol. 8, no. 9, Sept. 1959

Uncl.

HUICA, I.; BICLESANU, V.; GRAHMALIUC, G.; GHIU, T.; OPREA, M.; POPA, S.

On the age of the broken stones at Schela-Bumbesti Jiu-Arseni (northwest of Getic Depression). Dari seama sed 49 pt. 2.:113-117 '61-'62 [publ. '64]. (MIRA 17:11)

1. Submitted March 10, 1962.

G. BICOV

"Ninety years of the existence of A. M. Butlerov's theory of chemical structure." Tr. from the Russian. p. 5 (ANALELE ROMANO-SOVIETICE: SERIA CHIMIE, VOL. 6, seria a III a, no. 2, July/Sept. 1952, Bucuresti, Rumania.)

SO: Monthly List of East European Accessions, L. C. Vol. 2, No. 7, July 1953, Uncl.

Bicov, G.V.

RUMANIA/General Problems. A

Abs Jour : Ref. Zhur - Khimiya, No 10, 1957, 33369

Author : Bicov, G.V.
Inst :
Title : Scientific Method of A.M. Butlerev.

Orig Pub : An. rom.-sov. ser. chim., 1956, 10, No 4, 100-110.

Abstract : No abstract.

Card 1/1

BICOVSKY, K.; BICOVSKA, P.

Determination of xanthogenates and diethyldithiocarbaminate of sodium through extraction. In German. Coll.Cz.Chem. 24 no.9: 3099-3102 S '59. (EEAI 9:5)

1. Forschungsinstitut fur Eisenverhuttung, Prag.
(Xanthates) (Sodium diethyldithiocarbamate) (Extraction (Chemistry)) (Potassium ethylxanthate)

BICOVSKY, K.; BICOVSKA, P.

Determination of xanthogenates and diethyldithiocarbaminate of sodium through extraction. In German. Coll.Cz.Chem. 24 no.9: 3099-3102 S '59. (EEAI 9:5)

1. Forschungsinstitut fur Eisenverhuttung, Prag.
(Xanthates) (Sodium diethyldithiocarbamate) (Extraction (Chemistry))
(Potassium ethylxanthate)

BICS, Lajos

National conference of young Hungarian mining engineers.
Bany lap 93 no.8:568-569 Ag '60.

1. Nehezipari Miniszterium Szenbanyaszati Foosztaly.

DOMSA, Alexandru, prof. ing.; BICSAK, Eugen, ing.

The use of thermochemical reactions of some iron powders blasted into the oxyacetylene flame at cast-iron cutting. Metalurgia constr mas 14 no.10:865-869 O '62.

1. Institutul politehnic, Cluj.

DOMSA, A.; BICSAK, E.

Utilization of thermochemical reactions of some iron powders insufflated in the oxyacetylene flame in cast-iron cutting. Bul. stiint polit Cluj no.5:225-234 '62.

DOMSA, A.; BICSAK, E.

On the cutting of some highly alloyed steels by the aid of the Frem type iron powders. Bul stiint polit Cluj 6:245-255 '63.

BICZ, B.; BICZ, W.

Oxygen metabolism of guinea pig liver and kidney in histamine shock. Bul Ac Pol biol 10 no.9:389-391 '62.

1. Institute of Experimental Pathology, Polish Academy of Sciences, Warsaw. Presented by L. Paszkiewicz.

POLAND

[illegible] and BIEC, W., Experimental Pathology Research Office (Zaklad Patologii Doswiadczalnej), PAN [Polska Akademia Nauk, Polish Academy of Sciences]

"Oxygen Metabolism of Guinea Pig Liver and Kidney in Histamine Shock."

Warsaw, Bulletin de L'Academie Polonaise des Sciences, Serie des Sciences Biologiques, Vol 10, No 9, 62, pp 389-391.

Abstract: [English article, authors' Russian summary modified] Investigations of the authors revealed no significant differences in the endogenous oxygen metabolism of the liver and kidneys derived from control guinea pigs, from those stimulated with electric current, after histamine administration, and both. Addition of glucose to the incubation medium produced no change in oxygen requirements. These in vitro experiments, therefore, do not explain the protective action of electric current in histamine shock observed by other authors. Seven references (2 Polish, 5 English).

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CA

4

Comparison of mercury and diaphragm cells for the production of chlorine. M. Ilics. *Pearmyd Chem.* 6, 170–3(1950).—A comparison of the various factors entering into the operation of the Hg and the diaphram cell are reviewed and a combination of the 2 methods is suggested as the most economical method of producing Cl_2. F. G.